



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,294	02/11/2005	Mitsuhiro Yuasa	101249.55938US	6396
7590 Crowell & Moring PO Box 14300 Washington, DC 20044-4300			EXAMINER HESS, MICHAEL THOMAS	
			ART UNIT 3709	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
31 DAYS			03/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/524,294

Applicant(s)

YUASA, MITSUHIRO

Examiner

Michael T. Hess

Art Unit

3709

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 3-8 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Figures 5-9 depicting a method for fabricating a nonradiative dielectric waveguide in which a second conductive film is formed on a first conductive film;

Figures 10-16 depicting a method for fabricating a nonradiative dielectric waveguide in which a first sacrificial film is deposited on a first conductive film;

Figures 17-23 depicting a method for fabricating a nonradiative dielectric waveguide in which a first dielectric is film is formed directly on a substrate.

2. Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

3. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by

Art Unit: 3709

37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

4. The claims are deemed to correspond to the species listed above in the following manner:

Claims 3-4 correspond to the species depicted in Figs. 5-9;

Claims 5-6 correspond to the species depicted in Figs. 10-16;

Claims 7-8 correspond to the species depicted in Figs. 17-23.

The following claim(s) are generic: None.

5. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

The species depicted in Figures 5-9 corresponds to the special technical features of forming a second dielectric film on a first conductive film and etching said second dielectric film, which is not present in the species depicted in Figures 10-16;

The species depicted in Figures 5-9 corresponds to the special technical features of forming a first conductive film on a substrate, forming a second dielectric film on said first conductive film, etching said second dielectric film, embedding a first dielectric film in said second dielectric film, and forming a second conductive film on first and second dielectric films, which are not present in the species depicted in Figures 17-23;

The species depicted in Figures 10-16 corresponds to the special technical features of forming a first sacrificial film on a conductive film, forming a groove in said first sacrificial film, embedding a dielectric into said groove, forming a second sacrificial film on said first sacrificial layer, etching away a selective portion of said sacrificial film, forming a conductive film on said sacrificial film, and etching away said first and second sacrificial layers, which are not present in the species depicted in Figures 5-9;

The species depicted in Figures 10-16 corresponds to the special technical features of forming a conductive film on a substrate, forming a

Art Unit: 3709

first sacrificial film on a conductive film, forming a groove in said first sacrificial film, embedding a dielectric into said groove, forming a second sacrificial film on said first sacrificial layer, etching away a selective portion of said sacrificial film, forming a conductive film on said sacrificial film, and etching away said first and second sacrificial layers, which are not present in the species depicted in Figures 17-23;

The species depicted in Figures 17-23 corresponds to the special technical features of forming a first dielectric film on a substrate, forming a groove on said second dielectric that does not pass all the way through it, embedding a second dielectric into said groove, forming another first dielectric film on said first dielectric film and said second dielectric film, forming two grooves spaced a distance apart less than the width of said second dielectric, and embedding a conductor into each of said grooves, which are not present in the species' depicted in Figures 5-9 and Figures 10-16.

6. A telephone call was made to Herbert I. Cantor, attorney of record for applicant, on February 6, 2007 to request an oral election to the above restriction requirement, but did not result in an election being made.
7. Applicant is advised that the reply to this requirement, to be complete, must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.
8. The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Art Unit: 3709

9. Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael T. Hess whose telephone number is 571-272-0229. The examiner can normally be reached on 7:30 am - 5:00 PM, Monday -Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Bomberg can be reached on 571-272-4922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

  
KENNETH BOMBERG  
PRIMARY EXAMINER

Art Unit: 3709

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MTH